



Form PTO-14	49 DRMATI	ON DISCLOSU		ION	Docket No: 1999-03	336 (STG 162)	Application N	o: 09/593,21	5
		AN APPLICAT Several Sheets If New			Applicant: J. Heinonen et al.				
			· · · · · · · · · · · · · · · · · · ·		Filing Date: 6/14	/2000	Group Art U	nit: (unknow	n)
			U.	.S. PATENT [OCUMENTS				
EXAMINER INITIAL	DOCU	JMENT NUMBER DATE N		NAI	ME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
16	5,596,58	2 •	01/21/97	Sato et al.		370	509	_	
p1	5,774,45	0 #	06/30/98	Harada et al		370	206		
	ļ			ļ		<u> </u>			
<u> </u>			<u> </u>				 		
	<u> </u>	···		+					
		<u></u>							
	<u> </u>	· · · · · · · · · · · · · · · · · · ·	FOR	FIGN PATEN	T DOCUMENTS		<u> </u>	*******	
	<u> </u>	<u>.</u>	1011		1 DOCUMENTS	Τ	1		
	DOCU	MENT NUMBER	DATE	COL	JNTRY	RY CLASS		TRANSLATION	
								YES	NO
				 	 	-	<u> </u>		.,,
			-						
	<u> </u>			 		 		-,	
	ļ					 			
	<u> </u>			<u> </u>					
		OTHER DO	CUMENTS	(Including Au	thor, Title, Date, Pe	rtinent Pages, i	E(c.)		
		Lawrey, Eric, O	FDM Result	s, http://www	.eng.jcu.edu.au/eri	c/thesis/Thesi	<u>s</u> ,		
N	A1				ter1.htm (Septemb ter2.htm and http:/		edu au/eric/the	esis/annendi	x htm
י ע		November 5, 199		ior theolor enap	toto militario mano mano.	7 W W W.OHE.TOE		on appoint	<u>,</u>
		Speth, Michael,	OFDM Rece	ivers for Broa	dband-Transmissi	on,			
	A2	OFMD, http://ww node9.html, Nov			jekte/Theo/OFDM	1/www_ofdm.	htmlnode1.	html_throug	h
	A3	Speth, Michael, et			n Using ODM: Syste	em Performance	and Receiver C	omplexity", (7 pgs)
		(date unknown)							
pa l		,	ΛI					·	
EXAMINER		└	1/2/1/1		DATE CONSTRU	DED &	100/01/	 	
			My/	·	DATE CONSIDE		120100		
		tation is considered, visidered. Include copy					v line through cit	ation if not in	
•								(2/9	2 PTO)

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Orbetitute for	form 1449A/PTO			COMPLETE IF KNOWN							
		N DICCLO	SUDE.	Application Number	09/593,215	OIPE					
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	14 June 2000	7 5					
	(use as many	sheets necessi	ary)	First Named Inventor	J. Heinonen et al.	DEC 2 7 2000 🔾					
				Group Art Unit	Unknown						
				Examiner Name	Unknown	17. A.					
SHEET 1 OF 1				Docket Number	1999-0336 (STG162)	MADEIMARIE					

	U.S. PATENT DOCUMENTS										
Examiner Initials*		U.S. Patent Document		Name of Patentee or Applicant	Date of Publication	Pages, Columns, Lines, Where					
	Cite No.1	Number *	Kind Code ² (If known)	of Cited Document	of Cited Document MM-DD-YYYY	Relevant Passages or Relevant Figures Appear					
PA		5,790,000		HOOLE	08-25-1998	Claims 6, 7, 12-14, 17, 22-24					

				F	OREIGN PATENT DOCUMENTS	·		
_		Ĭ	Foreign Patent Docume	nt				
Examiner Initials*	Cite No.1	Office ³	Number•	Kind Code ⁵ (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6
Py		EPO	EP 0 877 526 A		LSI LOGIC CORP.	11-11-1998	Claims 1, 3, 15	
1		UK	GB 2 324 447 A		SAMSUNG ELECTRONICS	10-21-1998	Claims 5, 7, 17	
			ZA 9 803 646 A		- Fraunhofer Ges Foerderung Angewandten – Abstract	02-24-1999	Claims 1-3	
		PCT	WO 99/53667		Fraunhofer-Gesellschaft Forderung Der Angewandten	10-21-1999	Claims 1-3	
		EPO	EP 0869648 A2		NIPPON COLUMBIA CO.	10-07-1998	Claims 4, 7-11, 17-21	
1		PCT	WO 98/19410		DISCOVISION ASSOCIATES	05-07-1998	Claims 1, 3, 6, 15; 7, 12-14, 17, 22-24	
1 b.s		EPO	EP 0453203 A2		TELEBIT CORPORATION	04-15-1991	Claims 1, 3, 6, 15; 7, 12-14, 17, 22-24	
-								

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
Examiner Cite Initials* No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Te .					
ρí	A1	PCT, INTERNATIONAL SEARCH REPORT FOR PCT/US 00/16719, 11/01/2000; Mailed 11/13/2000, (8 pgs.)						
	A2	KIM, DONG-KYU, ET AL., "Performance Evaluation of the Frequency Detectors for Orthogonal Frequency Division Multiplexing", IEEE Transactions of Consumer Electronics, Vol. 43, No. 3, August 1997, pp. 776-782.						
	A3	ZAMAN, S.U., ET AL., "Use of the DFT for Synchronization in Packetized Data Communications", IEEE, pp. III 261-264, 19 April 1994.	†					
A4		YOOH, J.H., ET AL., "On Synchronizing and Detecting Multi-carrier CDMA Signals", IEEE, pp. 512-516, 6 November 1995.						

Examiner Signature Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

Unique citation designation number. 2See attached Kinds of U.S. Patent Documents. Enter Office that issued the document, by the two letter-code (WIPO Standart ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. Applicant is to place a check mark here if English language translation is attached.

SD\1411838

Please type a plus sign (+) inside the box

Approved for use through 10/31/2002. OMB 0651-003 U.S. Patent & Trademark Office: U.S. DEPARTMENT OF CQMMERCE

Under the Paperwork Reduction Action of 1995, so persons are required to response to a collection of information unless it contains a valid OMB number.

	·		157	WK w		
S. A. Cita	a for form 1443A/P1		7564	7.	COMPLETE IF KNO	
300000		- '	Se .	Application Number	09/593,215	COPY OF PAPERS ORIGINALLY FILED
1	STATEME	NT BY APPLIC	ANT & TRA	OE Sting Date	June 14, 2000	
		any sheets necessa		First Named Inventor	J. HEINONEN	
l				Group Art Unit	(Unknown)	
1				Examiner Name	(Unknown)	
SHEET	1	OF	1	Docket Number	1999-0336 (STG162)	(103567-156902)

-				U.S. PATENT DOCUME	NTS	
Examiner Initials*		U.S. Patent	Document	Name of Patentee or Applicant	Date of Publication	Pages, Columns, Lines, Where
	Cite No.1	Number	Kind Code 2 (If known)	of Cited Document	of Cited Document MM-DD-YYYY	Relevant Passages or Relevant Figures Appear
nr		5,901,180		Aslanis et al.	05/04/99	Fig. 2, cal. 9 , lines 16-20
	ļ	ļ				
		ļ				
		 		<u> </u>		
	 		 			
	L	L			<u></u>	

				F	OREIGN PATENT DOCUMENTS			
Evaminor	Cite	Fo	oreign Patent Do	cument	Name of Patentee or Applicant	Date of Publication	Pages, Columns, Lines,	
Examiner Initials*	No.1	Office ³	Number4	Kind Code ⁵ (If known)	of Cited Document	of Cited Document MM-OD-YYYY	Where Relevant Passages or Relevant Figures Appear	Ţē
			<u> </u>	 				ļ <u>.</u>
								
								
				 				

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published							
			<u> </u>						
			 						
			<u>ـــــ</u>						

Examiner Signature Date Considered 8/90/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two letter-code (WIPO Standart ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ³Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. ⁴Applicant is to place a check mark here if English language translation is attached.



U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

									COMP	LETE IF KNOWN		
Substitute for for		N BIGGI G	01105		Applica	ation Nun	nber	09/593,215				
N N	EORMATIO ATEMENT	N DISCLO	SURE		Filing (Date		June 14, 2000				
์ / ย		First Named Inventor		J. HEINONEN								
/			Art Unit	-	(Unknown)							
MAR	0 1 2001	(8)				er Name	-	(Unknown)				
cMaker	1 2001	SOF.	11			Number		1999-0336 (S	(103567-156902)			
SMEET	<u>'</u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	<u> </u>		DOCKE	Rumber		1000 0000 10	10102)		(10000) 100002/	
TR.	OEMARN	/					U.S. PATE	NT DOCUMEN	TS			
Examiner		U.	S. Patent D			Name	of Patentee	or Applicant		Date of Publication	Pages, Columns, Lines,	
Initials*	Cite No.1		Number Kind C				of Cited Do			of Cited Document MM-DD-YYYY	Relevant Passages or Re Figures Appear	elevant
Ø		5,351,235	, e			LAHTIN	(EN		09/27/01			
	-											
						FO	REIGN PA	TENT DOCUM				,
Examiner	Cite	<u> </u>	oreign Pate	nt Docu		nd a S	Name of Pa	itentee or Applica	nt	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Te
Initials*	nitials* No.1 Office3 Number4			er4	(If known)			ed Document		MM-DD-YYYY	or Relevant Figures Appear	'
								· · · · · · · · · · · · · · · · · · ·				
					* IGBLIES							
			<u> </u>						1			
			 									
												1
												1
				<u> </u>								
				\neg		Ť						
	·							**********				
•				OT	HER PF	RIOR AR	RT - NON P	ATENT LITER	ATURE D	OCUMENTS		
Examiner Initials*	Cite No.1	Includ	le name of sym	he auth posium,	or (in CAP catalog et	PITAL LET lc.), date,	TTERS), title page(s), vol	of the article (whume-issue number	en appropr er(s), publis	iate), title of the item (book, r sher, city and/or country when	nagazine, journal, serial, e published	Ţ 6
						-						
												 _
												ļl
										 		<u> </u>
										·		
			<u> </u>									├
			_									
												├
						-,-				·		لــــــــــــــــــــــــــــــــــــــ
Examiner	Signature			7/4	relu	ylan	<u> </u>	Date Co	onsidere	d 8/20/	loy	
						V						

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two letter-code (WIPO Standart ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ³Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.